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ABSTRACT

The development process of an alternative to high school government courses included the elaboration of a two-semester course called Comparing Political Experiences. The discussion of a competency-based approach to instruction and learning used in this course specifies, in diagram and in theoretical terms, three phases in achieving political competencies, formulation of measurable instruction objectives, attainment of objectives, and measurement of learner achievement. Secondly, the use of competency-based instruction appropriate to program goals requires a scheme for sequencing lessons, integrating instructional objectives with procedures, and creating a specific instructional context between teacher and learner. Thirdly, the implementation draws on a variety of instructional techniques and materials, seen in a sample unit, and uniquely integrates social science concepts and inquiry skills with political decision-making and participation through the use of the school as a political learning laboratory. (KSM)

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INSTRUCTION FOR POLITICAL COMPETENCE

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INSTRUCTION FOR POLITICAL COMPETENCE

The High School Political Science Curriculum Project at Indiana University has been established to develop an alternative to high school government courses.[1] The first step in this curriculum development process has been the conceptualization of a two-semester alternative course, which is elaborated in Comparing Political Experiences: An Alternative Program for High School Government Instruction.[2] This paper includes discussion of these aspects of the Comparing Political Experiences program: general purposes, underlying assumptions, terminal instructional objectives, a political system framework for analyzing political experiences, the school as a political learning laboratory, a competency-based instructional model, and the process of curriculum development.

The conceptualization of the Comparing Political Experiences program is a blend of ideas from several sources: the "new social studies" curriculum project movement of the 1960's; prominent criticisms of this movement; innovations of social studies educators not associated with the project movement; and curriculum development projects in fields other than the social studies. The program's conceptual structure, drawn from political science, and the goal of developing intellectual skills associated with social science inquiry are rooted firmly in the project movement of the preceding decade. The program's emphasis on

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[1]This project has been funded by the National Science Foundation and is sponsored by the American Political Science Association. The co-directors of the project are Judith A. Gillespie, Howard D. Mehlinger, and John J. Patrick.

[2]The authors of this occasional paper are Judith A. Gillespie and John Patrick. It is printed and distributed by the High School Political Science Curriculum Project at Indiana University, Bloomington.

value judgment analysis, group dynamics, and political participation reflect both important criticisms of the "new social studies," 1960's vintage, and instructional reforms that originated among social studies educators outside the project movement. The program's instructional paradigm is based extensively on concepts developed by curriculum projects in fields outside the social studies. However, the combination of these diverse strands, as proposed here, is a unique amalgamation designed to maintain the strengths of recent curriculum reforms in social studies while attempting to remedy major shortcomings.

Perhaps the most unusual facet of our proposed program is the intention to integrate the learning of social science concepts and inquiry skills with the learning of political decision-making and participation skills through the use of the school as a political learning laboratory. Many social studies educators dichotomize activity-oriented programs and academic social studies courses. Those who favor social learning through student participation in community affairs have tended to minimize the relevance of academic endeavor in the classroom. Those who oppose community-based social studies programs have tended to view this approach as tainted with "radical chic" and/or anti-intellectualism. Thus the integration of solid academic learning with learning through participation in social contexts outside the classroom has been largely unexplored. However, a central hypothesis of our curriculum development work is that a symbiotic relationship meshes the learning of knowledge and intellectual skills to learning by doing in social groups. This hypothesis is supported by the twin assumptions that: 1) students are likely to learn more effectively and to behave

more responsibly if they are able to reflect upon the sources and consequences of their actions; and that, 2) acquisition of social science knowledge and inquiry skills enhances ability to ponder human interactions insightfully.

In order to integrate inquiry and action, it is necessary to find a site that can support both processes. Presently, inquiry is based in the classroom, while action is focused on the community. The classroom is too limited to accommodate action needs; the community presents a number of practical problems for the inquiry teacher. For example, exploring the forms of influence that are most effective with certain community decision-makers would require much time, would be viewed by some as very controversial instruction, and would comprise only a fraction of what a teacher might hope to accomplish in a year. However, what might be impractical in the community is possible in the school. It is possible largely because schools have the capacity to control effectively the conditions of learning and transfer.

Schools not only provide an opportunity for controlled integration of political inquiry and action, they also offer a continuity of experience that is unavailable in classroom or community settings. Effective and responsible citizenship takes time. Typically, civic education experiences in the community are tied to "events": school board meetings focusing on controversial issues or specific interview situations with city council members. Students who observe or participate in the event only have little opportunity to put their experience into an integrated political perspective. On the other hand, classroom participation through either small-group activities or simulated settings does not allow students to see the con-

sequences of their political actions in an ongoing, systemic political setting. The school is a place where a student can study political life and build political experience on a continuing basis.

To achieve success in the multi-faceted Comparing Political Experiences program, which combines the perspectives and tasks of the academician and the political practitioner, students must acquire four sets of terminal instructional objectives, which are labeled: 1) knowledge competencies; 2) intellectual skill competencies; 3) participation skill competencies and, 4) attitudinal competencies.

The political competencies described by our instructional objectives are measurable; evidence can be marshaled to indicate whether learners have, or have not, achieved them. For example, to achieve competence in political knowledge is to demonstrate acquisition of concepts, facts, and factual judgments about "those activities through which resources are allocated in a system." Achieving intellectual skills pertinent to politics is showing competence to describe, explain, and evaluate the political world, to make more or less reliable judgments about political life. Achieving political participation skills is demonstrating competence to develop effective strategies for achieving individual and group goals in political life. Achieving attitudes pertinent to political studies and actions is demonstrating a disposition to believe and behave in certain ways, to value certain orientations to political participation and to the study of politics and to respond to political phenomena in particular ways.

The goal of developing political competencies, which contribute to social self-fulfillment, requires an approach to instruction and learning

that stresses the selection and implementation of the most effective and efficient means to the achievement of valued measurable ends. The attention of teachers and students must be focused on the measurement and assessment of student political competencies before and after experiences designed to yield specified changes in ability. The effectiveness of teachers must be judged in terms of the measured achievement of learners, and the success of learners must be judged in terms of progress toward the mastery of measurable objectives which describe valued political competencies.

Following is a three-part description of an approach to instruction and learning which can guide the design of means to achievement of particular political competencies. Part A is a description of our approach to competency-based instruction and learning; Part B is a discussion of how to implement this approach to instruction and learning to achieve political competencies; and Part C is a discussion of why our use of competency-based instruction is appropriate to our goals.

A. A Competency-Based Approach to Instruction and Political Learning

Emphasis on demonstrable change in ability to think and act, in terms of measurable educational objectives, is the essential characteristic of competency-based instruction and learning.[3] The relationship

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[3]Joe Lars Klingstedt, "Philosophical Basis for Competency-Based Education," Educational Technology, 12:11 (1972), pp. 10-14; W. James Popham and Eva L. Baker, Systematic Instruction, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970, pp. 7-17.

between means (techniques and materials of instruction) and ends (objectives of instruction) is highlighted as indicated by the following conceptions of instruction and learning.

According to the competency-based approach, instruction is the creation of conditions that facilitate measurable changes in the competencies of an individual; it is "the process whereby the environment of an individual is deliberately manipulated to enable him to learn to emit or engage in specified behaviors under specified conditions or as responses to specified situations."[4] To instruct in terms of a competency-based paradigm is to alter an individual's environment in order to change the individual's ability to think and act in certain ways under certain conditions.

Learning is a relatively permanent change in competence that results from experience and which is not attributable to physical maturation or disability.[5] A person who has learned can do something new as a consequence of interaction with his environment. Political learning in schools is both formal and informal. Formal political learning is planned and results from student involvement in social studies courses and observance of school rituals and rules: teachers design instruction to transmit political knowledge; patriotic observances

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[4]Stephen M. Corey, "The Nature of Instruction," Programmed Instruction, 66th NSSE Yearbook, Part II, Chicago: University of Chicago Press, 1967, p. 6.

[5]Robert M. Gagne, The Conditions of Learning, New York: Holt, Rinehart and Winston, Inc., 1965, p. 5.

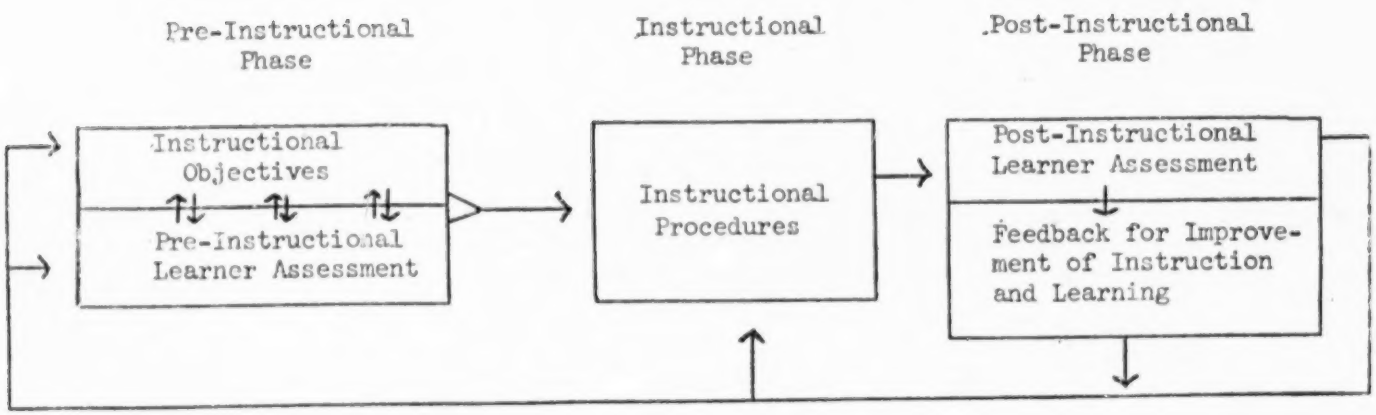
are planned to teach attitudes; school rules are established to influence attitudes and behavior. Informal political learning is unplanned and results from students' trial and error efforts to cope with political life in school. Through interaction with teachers and administrators, students may learn when and how to exert influence or to use or conform to authority. Students may learn political attitudes as they observe school teachers and administrators: their styles of behavior, their administrative or teaching procedures, their dispositions toward different types of students. Students may also learn political skills and attitudes informally through participation in activities such as clubs, athletics, or committees to plan dances or to raise funds for charity.

One main purpose of competency-based instruction and learning is to provide for the efficient achievement of objectives, to expedite formal learning. An additional main purpose which is particular to our use of competency-based instruction and learning is to increase formal political learning and to reduce informal political learning in schools by extending instruction to political life in the school outside the classroom. This extension of instruction provides the possibility of greater control over the development of political competencies as students have the opportunity to systematically and formally learn political participation skills, and attitudes supportive of these skills, which cannot be acquired through classroom activities only.

The relationship of instruction to learning (of means to ends), which is central to the competency-based approach, can be viewed systematically, as illustrated by Diagram 4 below. This diagram serves

as a frame of reference for the subsequent discussion of our adaptation of competency-based instruction and learning.

DIAGRAM 4: A COMPETENCY-BASED SYSTEM OF INSTRUCTION AND LEARNING



1. The Pre-Instructional Phase. Key questions to guide the teacher's development of instruction and learning during the "pre-instructional phase" of Diagram 2 are: 1) What can the learner do before instruction? 2) What do I want the learner to be able to do after instruction? The first question pertains to the pre-instructional assessment of learner competencies, and the second question pertains to the formulation of measurable instructional objectives, which describe precisely the competencies learners are to achieve through a program such as Comparing Political Experiences.

The formulation of instructional objectives is a normative enterprise which is based upon assessment of the actual and potential competencies of the target population of learners. Several recent studies indicate a large gap between the potential and actual political competencies of most American high school students, and that the political learning attainments of most high school youth fall far short of the political competencies to be yielded by the Comparing Political Experiences program.[6] However, studies of cognitive development suggest that most older adolescents have potential for achieving high level political learning, such as the political competencies we believe they

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[6]Kenneth P. Langton and M. Kent Jennings, op. cit., Education Commission of the States, National Assessment of Educational Progress: Citizenship, Washington, D. C.: U.S. Government Printing Office, 1970.

should acquire.[7] Thus, it is reasonable to posit these political competencies as our objectives of instruction, since they are largely unattained, and attainable, by most older adolescents.

Both terminal and interim instructional objectives are formulated for the Comparing Political Experiences program. Terminal instructional objectives describe the competencies to be achieved at the end of a course of study and are the first to be formulated. The terminal objectives of our program appear on pages 42-53. Interim instructional objectives, those which describe the competencies to be achieved at the end of a lesson, or a set of lessons, are subsumed by the terminal objectives. Presumably achievement of interim objectives contributes to the mastery of the more fundamental terminal competencies. For example, following is a terminal objective which describes intellectual skill competencies to be developed by our program: Students will be able to use standard techniques for data collection such as survey research, interviewing, participant observation, content analysis, and extant data collection. This terminal objectives subsumes many interim objectives which pertain to particular lessons of our overall program, such as the following objectives that indicate three of several desired outcomes of a lesson about sample survey research techniques.

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[7]June L. Tapp and Lawrence Kohlberg, "Developing Senses of Law and Legal Justice," The Journal of Social Issues, 27:2 (1971), pp. 65-91; Joseph Adelson and Robert P. O'Neil, "Growth of Political Ideas in Adolescence: The Sense of Community," Journal of Personality and Social Psychology, 4:3 (1966), pp. 295-306; Joseph Adelson, op. cit.; Judith Gallatin and Joseph Adelson, "Legal Guarantees of Individual Freedom: A Cross-National Study of the Development of Political Thought," The Journal of Social Issues, 27:2 (1971), pp. 93-108.

1. Students will be able to identify each example of the following sampling procedures from a series of descriptions of sampling procedures: simple random sample, quota sample, stratified random sample, cluster sample, chunk sample.

2. Given a brief description of a sample survey research problem, students will be able to select the sampling procedure, from a series of alternative descriptions, which is both most practicable and most likely to yield an accurate survey.

3. Students will be able to distinguish acceptable from unacceptable questions to be used in a hypothetical sample survey research project in terms of these criteria: a) acceptable questions are stated clearly; b) acceptable questions are unbiased; c) acceptable questions are significant.

Both terminal and interim instructional objectives are necessary aids to the design, implementation, and evaluation of instruction. Several recent studies indicate students of teachers who use measurable instructional objectives to guide their work are likely to learn more efficiently and amply than those whose teachers either ignore or eschew precisely formulated objectives.[8] Following are five main uses of objectives, as tools of instructional design and learning, which indicate how and why instructional objectives expedite teaching and learning.[9]

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[8]John M. Muchmore, "Behavioral Control: A Matter of Ethics," Educational Technology, 11:6 (1971), pp. 45-46; Richard W. Burns, "Behavioral Objectives for Competency-Based Education," Educational Technology, 12:11 (1972), pp. 22-23; Jon I. Young and Adrian P. Van Mondfraus, "Psychological Implications of Competency-based Education," Educational Technology, 12:11, (1972), pp. 16-17.

[9]W. James Popham and Eva L. Baker, op. cit., pp. 7-76.

First, objectives guide the selection of lesson content, the subject-matter that appears likely to facilitate achievement of objectives. For example, the preceding three interim objectives about sample survey research techniques indicate that the content of the lesson designed to facilitate achievement of the objectives must include descriptions of various sampling techniques, criteria for appraising the merits of various sampling techniques, and criteria for appraising questionnaire design.

Second, objectives guide the ordering, or sequencing, of lessons. They indicate what prerequisite competencies the learner must achieve before a particular set of objectives can be mastered. Thus, they are indicators of what precedes and follows a particular lesson. For example, students must be able to formulate empirically testable hypotheses before they are able to master lessons about hypothesis testing techniques such as sample survey research.

Third, objectives guide the selection of instructional techniques and materials, since different types of objectives require the design of different learning conditions. Following are two very different instructional objectives which require different types of instruction:

1. Students will be able to read correctly any two-by-two contingency table.

2. Students will be able to speculate about the best solution to a public policy question faced by a city council.

Skills such as table reading can be introduced and developed most efficiently through a self-instructional program. In contrast, various

speculative answers and the divergent thinking which yields them, which are required to achieve the second objective, are best generated through some type of group discussion situation.[10]

Fourth, as criteria for measuring the effectiveness of instruction, objectives guide the evaluation of learning and instruction. For example, the interim objectives about sampling procedures and questionnaire design stated above describe performance standards to be attained by learners, which imply how to evaluate the performances of learners.

Fifth, objectives indicate exactly to teachers and students what a course of study is stressing, glossing, or avoiding. Clearly stated objectives reveal whether a program stresses learning that is trivial or profound, esoteric or practical, unattainable or attainable. Indeed, the worth of instruction cannot be properly judged unless the preferred outcomes of instruction are revealed clearly.

Precisely stated instructional objectives are an indispensible feature of competency-based instruction and learning. They are normative guides to instructional design, which can facilitate greatly the effectiveness of teachers and the achievements of learners by indicating clearly what is to be done and how to do it.

2. The Instructional Phase. After stating objectives clearly, one is ready to determine how to attain them efficiently. The key

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[10] David P. Ausubel, Educational Psychology: A Cognitive View, New York: Holt, Rinehart, and Winston, Inc., 1963, pp. 83-126; 421-422; Bryce B. Hudgins, The Instructional Process, Chicago: Rand McNally and Company, 1971, Chapter Two.

question to guide the teacher's development of instruction and learning during the "instructional phase" of Diagram 4 is: What means do I use to help the learner achieve desired changes in competence?

Following is a discussion of five pedagogical concepts that can guide the design of instruction to facilitate achievement of terminal and interim political competencies. These concepts are: 1) perceived purpose; 2) appropriate practice; 3) transfer of learning; 4) differentiated instruction; and 5) instructional variety.

Perceived purpose is knowing what the objectives of instruction are and why it is valuable to achieve them. Several research studies indicate that telling students, at the outset of instruction, what they are expected to achieve and why enables them to learn more effectively and efficiently. It appeares that knowing the point of instruction helps the learner to stay on track, to focus attention on elements in the learning situation which are relevant to the task to be achieved. Furthermore, it appears that knowing why it is valuable to achieve certain competencies, how they are applicable to important concerns of the learner, is a strong motivation for learning. Learners who understand why development of certain political competencies is necessary to do things that they value are likely to try hard to learn these competencies. For example, linking academic political learning to political participation, to the achievement of values within the political world of the school, can be a vivid means for motivating

learners by showing the practical worth of achieving instructional objectives.[11]

Appropriate practice is doing what is necessary to achieve instructional objectives. The instructional designer must arrange conditions of learning which require the learner to think and act in a manner consistent with the attainment of desired political competencies. Learners must have the opportunity to practice what they will be required to do to display mastery of the instructional objectives.[12] For example, to achieve mastery of a concept, such as political resources, the learner should be given repeated opportunities to use this concept to organize and interpret information and to build, in combination with related concepts, descriptive and explanatory statements.

To be effective, appropriate practice activities should require active learning, which is reinforced. As students use data, ideas, and skills to complete exercises, they should obtain knowledge of results as soon as possible. This regular feedback reinforces correct responses and alerts the learner to deficiencies that must be remediated before instructional objectives can be achieved.[13]

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[11] Jon I. Young and Adrian P. Van Mondfrans, op. cit., p. 17; Joe Lars Klingstedt, op. cit., pp. 11-12; W. James Popham and Eva L. Baker, op. cit., pp. 80-82.

[12] W. James Popham and Eva L. Baker, op. cit., pp. 82-87.

[13] B. F. Skinner, Technology of Teaching, New York: Appleton-Century-Croft, 1968, pp. 141-144; 206-212.

The mastery of particular instructional objectives is likely to transfer, to affect subsequent learning either positively or negatively. Positive transfer is seen when mastery of statistical table reading skills in the classroom helps one to appraise the results of a public opinion poll reported in a newsmagazine. In contrast, negative transfer interferes with new learning. For example, learning how to influence policy decision-makers from a misleading educational game might impede the achievement of influence in real political situations.[14]

Positive transfer of learning must occur throughout the learners' use of the Comparing Political Experiences program so that they can master progressively more difficult subject matter and can cope with a wide range of practical political problems. For example, students must learn how to transfer knowledge and skills acquired from basic introductory lessons to subsequent lessons; they must learn to apply a basic conceptual framework to a broad range of intellectual and practical problems; and they must learn how to use knowledge and skills gained from classroom lessons to attain and play valued political roles outside the classroom. Following are guidelines derived from research and the practical experiences of curriculum developers for creating instruction to maximize the possibility of positive transfer of political learning.

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[14]Henry Ellis, The Transfer of Learning, New York: The Macmillan Company, 1965, pp. 3-5.

Instruction for positive transfer should feature correspondence between original learning tasks and the subsequent transfer tasks. The more similar the conditions of learning and the performance tasks are from one situation to another, the greater the possibility of positive transfer. Specification of measurable instructional objectives is the key to the achievement of positive transfer through task similarity. Objectives focus attention on the degree of similarity between appropriate practice tasks, transfer tasks associated with formal learning in school, and eventual transfer tasks outside the school. This focus allows teachers to arrange for the greatest possible congruence between instructional objectives, appropriate practice activities, and transfer tasks in school which require learners to demonstrate mastery of objectives through the successful application of what was learned in one situation to fresh, similar situations.[15]

Instruction for positive transfer should feature appropriate practice under varied task conditions. For example, the possibility of positive transfer in skill learning is enhanced by requiring students to use intellectual and participation skills in both classroom and extra-classroom settings. In addition, the likelihood of positive transfer of political concept learning is increased greatly by presenting learners with numerous positive and negative instances of the

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[15] Ibid., pp. 15-31.

concepts and requiring them to apply the concepts variously to the solution of different academic and practical political problems.[16]

Positive transfer is encouraged by instruction which requires elaborate intensive, appropriate practice on introductory tasks that are basically related to subsequent higher level tasks. This thorough early learning necessarily is time consuming and painstaking, but it yields the dividend of easing the mastery of related lessons that occur later in a series of increasingly complex tasks. Thus, students should be required to spend ample time mastering basic concepts and skills so that these fundamentals might be applied successfully to the solution of academic and practical political problems.[17]

Higher level learning is more transferable than lower level learning is. Learning and thinking can be viewed as ranging from the low-level recall of facts and ideas to higher level cognitive moves which involve the use of facts and concepts to construct descriptions, explanations, and evaluations and to solve problems. The knowledge and intellectual skills acquired through higher level learning tasks are so fundamental as to be applicable to various and unforeseen academic

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[16] Ibid., pp. 44-45; C. P. Duncan, "Transfer After Training With Single Versus Multiple Tasks," The Journal of Experimental Psychology, 55 (1958), pp. 63-72; David P. Ausubel, Educational Psychology: A Cognitive View, New York: Holt, Rinehart and Winston, Inc., 1968.

[17] Henry Ellis, op. cit., pp. 45-47; David P. Ausubel, op cit., pp. 160-161.

and practical problems. This is why the positive transfer of higher level learning is the key to learning how to learn, to potent thinking and learning without the help of a teacher.[18] The Comparing Political Experiences program requires students to continually operate at higher levels of cognition and learning as indicated by the emphasis on thinking systematically in terms of a conceptual framework and on achieving particular analytical and methodological competencies.

To encourage transfer, students regularly should experience lessons that require active learning, the application of information, ideas, and skills to the mastery of exercises and problems.[19] The extent to which positive transfer occurs for most students depends upon the extent to which instruction pointedly requires them to apply their knowledge and skills. Indeed, it is likely that students may develop a sensitivity to new applications of knowledge and skills as a consequence of instruction that stresses active learning.[20] The Comparing Political Experiences program requires active learning to encourage positive transfer both inside and outside of the classroom. For example, students are required to practice active learning in the classroom by making the intellectual moves necessary to the successful analysis of case

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[18] Percival M. Symonds, What Education Has To Learn From Psychology, New York: Bureau of Publications of Teachers College, Columbia University, 1964, pp. 75-90; David P. Ausubel, op. cit., pp. 147-162.

[19] Percival Symonds, op. cit., pp. 86-90.

[20] Ibid., p. 87.

studies or to the solution of data gathering and processing problems. Students are also required to practice active learning when they make the moves necessary to conduct inquiries about political phenomena in the school or to participate in the political life of the school.

Transfer of learning always results from student experiences in schools. However, unintended negative consequences may occur all too often unless instruction is designed systematically and pointedly to yield particular kinds of positive transfer.[21] In particular, negative transfer might stem from the informal political learning associated with role relationships in schools. The Comparing Political Experiences program features instruction designed to yield specific and general positive transfer of political learning to academic and practical problems in both classroom and extra-classroom settings. Specific transfer refers to the acquisition of ability to transfer learning from one task to new tasks of the same type. General transfer refers to the acquisition of ability to transfer learning broadly to various types of tasks. Those who demonstrate a general capability to master a broad range of problems have learned how to learn, which should be an ultimate goal of any program of formal learning.[22] The extension of instruction from typical classroom settings to inquiry and participation settings outside the classroom is a potentially powerful means to the positive general transfer of political learning.

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[21] Henry Ellis, op. cit., pp. 61-74.

[22] Ibid., pp. 32-38; Harry F. Harlow, "The Information of Learning Sets," The Psychological Review, 56 (1949), pp. 51-65.

Implementation of a competency-based system requires differentiated instruction, a variation in conditions of learning to accommodate differences in learners. A main assumption associated with competency-based instruction and learning is that all, or nearly all, learners can achieve all, or nearly all, of the basic, or minimal, objectives of a course. However, differentiated instruction means that all learners are not required to achieve the same competencies in the same way. Learners with higher aptitude presumably will learn more quickly than those with lower aptitude. More able learners, those who achieve mastery of basic objectives more quickly, must be provided with enrichment learning experiences, with opportunities to refine and extend particular political competencies. Those with lower aptitude require remedial instruction or more practice in order to achieve the basic performance objectives. Learners with different interests or proclivities can be provided with learning options, different learning experiences that can be chosen by those with different learning needs. Thus, although all learners are expected to achieve the minimal course objectives, different learners have the opportunity to refine and extend their development of political competence in various ways.[23] For example, some individuals may decide that they have particular talent to play group leadership roles. Thus, they may choose to extend their competence

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[23] James H. Block, Mastery Learning: Theory and Practice, New York: Holt, Rinehart and Winston, 1971; E. Perry Rosove, "To Teach By Behavioral Objectives Or Not?" Educational Technology, 11:6 (1971), pp. 36-39; David J. Klaus, Instructional Innovation and Individualization, Pittsburgh: American Institute for Research, 1969.

for group leadership beyond that specified by the minimal course objectives. Other learners may decide that they have the interest and potential to develop communication skills for political purposes. Thus, they may opt to develop relevant competencies beyond those described by the basic course objectives. Increasing self-awareness, so that wise choices about individual development can be made, is integral to the practice of competency-based instruction and learning.

A competency-based system of instruction and learning requires instructional variety, the use of many different instructional techniques and materials. The value of instructional variety is based primarily on the belief that there are various types of learning. For example, psychologists of learning have created hierarchical taxonomies of cognition and learning which distinguish lower levels of cognition and learning, such as knowledge recall, from higher levels, such as analysis, synthesis, and evaluation. They have identified and examined the differences between divergent and convergent thinking, between verbal association, multiple discrimination, and concept learning, and between affective, cognitive, and psychomotor learning. These learning and instructional theorists have hypothesized that different types of learning require different instructional procedures, and that there is no single instructional mode or technique that should be used exclusively. They claim that the teacher who only conducts class discussion, or who only teaches through educational games, is much less effective than the teacher who tries to match instructional procedures with instructional objectives. They maintain that some objectives are most efficiently and/or effectively achieved through expository in-

struction, such as programmed instruction or lectures. Other objectives can best be achieved through discovery lessons, which require students to solve problems posed by a simulation or by a discussion of a controversial public issue. The successful instructor carefully considers the fit between instructional objectives and instructional techniques.[24]

Instructional variety not only serves learning efficiency, it also spices learning experiences by making learning more exciting and interesting. Students who are asked only to discuss, or to complete programmed exercises, or to play educational games are likely to become bored. Students who experience a blend of different types of learning activities are more likely to be motivated than are students who must do the same things day after day.

The structure of Comparing Political Experiences requires variety and flexibility in instructional materials as well as teaching techniques. The substantive framework and the basic comparative content of the course require the design of a core resource package which has both the sequenced structure of a textbook and the flexibility of a kit containing many types of materials. Students need common reading and inquiry lessons, skill development exercises, and both simulated and experimental situations in which to confront ideas and test hypotheses. Students also need a sizeable amount of data to supplement hypothesis testing and skill development. Thus, the classroom activities require a variety of types of materials.

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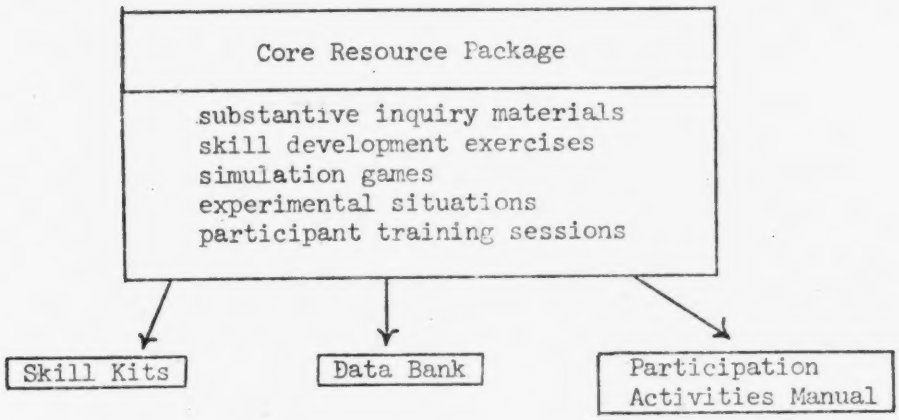
[24]Ivor K. Davies, The Management of Learning, New York: McGraw-Hill Publishing Company, 1971, pp. 89-107; Robert M. Gagne, op. cit., pp. 31-61; Benjamin S. Bloom, et. al., Taxonomy of Educational Objectives: Handbook I, Cognitive Domain, New York: David McKay Company, Inc., 1956.

The structure of the school political experiences also requires both a varied and flexible set of materials. All students need to experience training sessions to develop participation skills. Yet, since students will be undertaking separate, interrelated projects simultaneously throughout the program, the materials will often take the form of skill-training kits which can be used at any point in the program in which the students have need for them. Some basic skills in analysis, methodology and participation will be universally taught. Others, however, will be used depending on the particular activities in which students are engaged. Thus, in addition to core course materials, several types of flexible supplemental kits need to be created. The major materials for the program can be diagrammed as follows:

DIAGRAM 5: FLEXIBLE INSTRUCTIONAL MATERIALS



Our belief in the importance of instructional variety means that the program will include the widest range of useful types of lessons, from class discussion of case studies to the performance of roles in classroom simulations of cases, from programmed lessons designed for independent study to lessons which require small group discussions, from classroom discussion of public issues to participation activities which require the solution of political problems.

3. The Post-Instructional Phase. The post-instructional phase of a competency-based system, as described by Diagram 4 on page 114, pertains to measurement of learner achievement for the purpose of evaluating the strengths and weaknesses of instruction and learning. Key questions to guide the teacher's behavior are: 1) How do I determine that instruction has, or has not, been successful? 2) What should be done to help the learner to succeed, if I determine that the learner has failed to achieve desired changes in competence?

As indicated by the preceding key questions, the functions of evaluation in a competency-based system of instruction and learning are to:[25]

1. measure the learning of students in terms of their achievement of particular objectives, or competencies;

2. determine which objectives have been attained, so that the teacher and student behavior associated with this success is reinforced;

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[25]Benjamin S. Bloom, Thomas J. Hastings, and George F. Madaus, Handbook on Formative and Summative Evaluation, New York: McGraw-Hill Book Company, 1971, pp. 117-138; Ivor K. Davies, op. cit., pp. 207-215; W. James Popham and Eva L. Baker, op. cit., pp. 129-147.

3. determine which objectives have not been attained, so that appropriate remedial instruction can be provided;

4. inform the teacher of particular strengths and weaknesses of instructional procedures used to achieve particular objectives;

5. suggest improvements in instructional techniques and materials that can lead to improved student performance with reference to particular instructional objectives.

Criterion-referenced tests, those designed specifically to measure the extent to which each learner has attained particular instructional objectives, are needed to carry out the functions of evaluation in a competency-based system. A student's score on a criterion-referenced test is interpreted in terms of established criteria (instructional objectives), not in relationship to the scores of other students.[26]

Criterion-referenced tests should be broadly conceived and applied; the test format should vary with the instructional objectives that are to be measured. These tests might take the usual form of standard paper and pencil tests, with multiple choice, true-false, short answer, or essay formats, which yield student responses as evidence of achievement, or lack of achievement, of particular knowledge or intellectual skill objectives. Criterion-referenced tests to measure knowledge and intellectual skill competencies can also consist of appraisal of student products, such as the design and execution of a sample survey research project to determine political opinions in the school or the design of a planning paper to utilize the political resources of a student group. Another type of criterion-referenced

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[26] Ivor K. Davies, op. cit., p. 208.

test which is especially appropriate to the measurement of attitudinal or participation competencies is the appraisal of student behavior in political participation settings.[27] For example, participant and non-participant observers can be primed to judge, in terms of instructional objectives, the quality of political role performances of students during debriefing sessions that follow participation lessons in both simulated classroom settings and real settings in the political world of the school.

Criterion-referenced tests can be used for either formative or summative purposes. Formative tests are used to determine the extent to which interim objectives (those that pertain to a given lesson, or set of lessons) have been mastered and to pinpoint specific parts of the unit of instruction which have not been achieved. In contrast, summative tests are used at the end of a course as an overall appraisal of the extent to which terminal objectives have been achieved. Formative testing can help to improve instruction and learning during the use of a program such as Comparing Political Experiences. Summative testing provides a general picture of teacher and learner success at the end of a program, which, in combination with formative test results, can contribute to the improvement of a course in preparation for the next group of students who are to take the course. In order for a course to

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[27] Benjamin S. Bloom, Thomas J. Hasting, and George F. Madaus, op. cit., p. 61; p. 117.

be considered successful, most of the students must demonstrate mastery of most of the instructional objectives through their performances on criterion-referenced tests in formative and summative testing situations.[28]

Formative testing techniques that can be used throughout a course to enhance learning are: 1) to schedule frequent formative tests; 2) to provide feedback about test performance as soon as possible to reinforce learning, pinpoint deficiencies, and to prescribe remedies; and, 3) to enable students to try repeatedly to achieve mastery after experiencing appropriate remedial instruction. These techniques enable formative testing to be a continuation of instructional procedures that can maximize the possibility that most students will master all, or nearly all, of the terminal instructional objectives of a course.

Some type of formative test should be given upon completion of any complex learning task; that is, any unit of instruction which consists of several related ideas and/or skills. The unit of instruction over which a formative test is given may have consumed as few as two or three class periods or as many as nine or ten. The scheduling of frequent formative tests, that cover relatively short segments of a course, paces students' learning so that they thoroughly master the early basic lessons that are prerequisite to the learning of subsequent lessons in a sequentially organized course, such as Comparing Political Experiences. Another advantage of the paced learning, that stems from frequent, thorough formative testing over small units of instruction, is enabling students to prepare for the tests pointedly and efficiently

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[28] Ibid., pp. 54-55; 131-135.

without becoming overwhelmed by material to be learned.

Providing feedback about the worth of student performances as soon as possible is essential to the utilization of formative testing to improve instruction and learning. The test results can be a powerful reward and reinforcement of learning for those who receive confirmation of mastery. In addition, repeated evidence of mastery learning reassures the achieving students that their approaches to learning are sound and motivates them to continue to make the same kind of effort in order to achieve success in the future.

Feedback about formative test performance is necessary to identify the deficiencies of those who do not achieve mastery and to prescribe remedial instruction. After taking a formative test, students must be shown what part of the test they did not master and which instructional objectives are represented by the unmastered portions of the test. This revealing of unachieved competencies tells students which knowledge, skills, or attitudes they still need to work on.

Diagnosis of learning deficiencies as revealed by a formative test should be accompanied by a prescription of what students might do to remedy their shortcomings and to demonstrate achievement of objectives. For example, as remedial instruction, students might be directed to complete a self-instructional program, to seek tutorial help from a peer who has already achieved mastery, or to participate in a small group activity designed to overcome a particular learning difficulty. Students who spend time and effort trying to remedy learning deficiencies as revealed by a formative test should be provided with at least one additional opportunity to demonstrate mastery on an alternative form of

the original formative test.

Formative tests should be used not only to assist remediation of learner difficulties, but also to help teachers and/or curriculum developers to improve instruction. A rule to guide identification of instructional deficiencies is that when a formative test reveals the same deficiency among a majority of learners, then the deficiency might be regarded as associated primarily with the instruction rather than with the learners. Teachers and/or curriculum developers can investigate these massive student deficiencies to find clues about how to remedy instructional techniques and materials so that they can facilitate rather than impede mastery learning.

The primary obligation of the designer and implementor of instruction in a competency-based system is to create conditions of learning which are likely to lead to desired changes in the learner. Learning must be measured by gathering evidence which reveals changes, or lack of changes, in student competence. Thus, teaching effectiveness is determined by assessing the relationship between means employed to achieve desired changes in competence and the actual changes in learner competence which are demonstrated. Remedial instruction is provided for slower learners, for those who at first fail to achieve instructional objectives. A main assumption of competency-based instruction is that continued failure of learners on a massive scale reflects serious inadequacy in either the instructional objectives or in the design and implementation of instruction.

B. A Strategy and Context for Using Competency-Based Instruction

As indicated by the preceding discussion, our conception of competency-based instruction has a very wide scope. It encompasses classroom and extra-classroom learning experiences, and it includes both cognitive development, as exemplified by systematic efforts to teach political knowledge and intellectual skills, and social development, as exemplified by systematic efforts to teach political role behavior in participant settings. This broad gauge conception of competency-based instruction and learning requires an appropriately complex, yet clearly defined, instructional strategy, used in an appropriate instructional context, that can fuse diverse instructional objectives, techniques, and materials. An instructional strategy is a scheme for sequencing lessons and for integrating instructional objectives and procedures. An instructional context refers to conditions surrounding teaching and learning which may facilitate or impede the mastery of objectives. Following is a discussion of an instructional strategy, and the kind of context in which it should be used, that provides for implementation of the key features of our competency-based system instruction: for systematic linkage between learning experiences; for development of learning experiences in terms of precisely-stated objectives which describe political competencies to be achieved; for the demonstration of mastery of objectives; for continuous transfer and application of learning from lesson to lesson within and outside of the classroom; for differentiated instruction to accommodate differences in learners; for instructional variety to achieve the appropriate fit between objectives and instructional

techniques and materials; and for continuous evaluation as a means to the improvement of instruction and learning.

1. Categories of an Instructional Strategy. Our instructional strategy, diagrammed on page 140, consists of six categories: A) Confrontation; B) Knowledge and Intellectual Skill Development; C) Hypothesis Testing; D) Political Participation; E) Value Judgment Analysis; and F) Achievement Assessment. As indicated by the diagram, each category of instruction may include lessons which occur sometimes in the classroom and at other times in the school, our political laboratory outside the classroom. In concert, these categories of instruction can provide for sequential learning experiences geared to developing knowledge, skills, and attitudes necessary to the maximization of a learner's potential for political thought and action.

Category A, "confrontation," initiates a unit of instruction by enabling students to perceive the purpose of subsequent learning activities, the instructional ends which are to be sought. Confrontation lessons are designed to generate questions and speculative answers to the questions. These initiating lessons can serve to motivate students, to attract attention and to provoke them to subsequent study to check their speculative answers against available facts. Finally, this category of instruction provides a frame of reference which can facilitate progress through a series of lessons.

Discovery learning activities, which require students to arrive at answers with little or no direction from the teacher, are appropriate to the confrontation category of instruction. Often a discovery lesson consists of fragments of information from which students

must construct generalizations. The teacher behavior appropriate to discovery lessons consists of guiding and prompting student thinking and discussing rather than giving answers and thereby foreclosing student inquiry. The teacher conducts open-ended discussion and provokes student responses to cues presented in the lesson. The teacher does not evaluate student responses, since the point of a discovery lesson is to generate motivation to investigate relevant concepts and facts.[29]

As indicated by the diagram, confrontation lessons can occur in both the classroom and the school. Examples of classroom instruction appropriate to confrontation lessons are open-ended case studies, educational games, role-play situations, or discussions of issues. An example of an appropriate extra-classroom experience is observance and discussion of political activity occurring in the school.

Category B, "knowledge and intellectual skill development" provides instruction to aid the learning of concepts, facts, and skills necessary to answering the questions raised by the confrontation lessons. For example, answering a question raised by a confrontation lesson might depend upon mastery of the concept of influence. If so, lessons designed to help learners acquire this concept ought to be presented. Or, if answering a question raised by a confrontation lesson requires learning the skills necessary to interpret a public opinion poll, then

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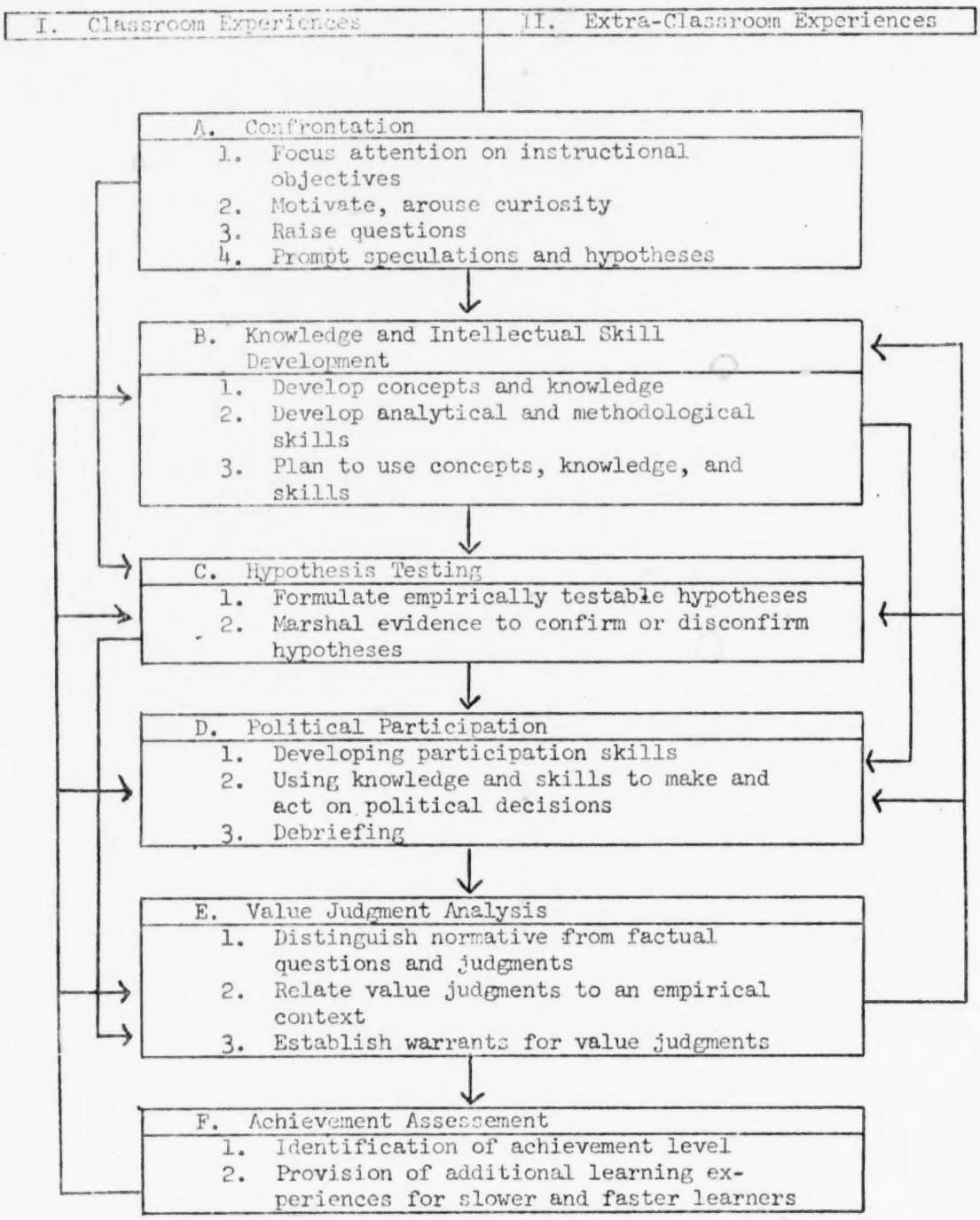
[29] Jerome Bruner, The Process of Education, Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1960; Bryce B. Hudgins, op. cit.

DIAGRAM 6: INSTRUCTIONAL STRATEGY


I. Classroom Experiences
II. Extra-Classroom Experiences
A. Confrontation
1. Focus attention on instructional objectives
2. Motivate, arouse curiosity
3. Raise questions
4. Prompt speculations and hypotheses
B. Knowledge and Intellectual Skill Development
1. Develop concepts and knowledge
2. Develop analytical and methodological skills
3. Plan to use concepts, knowledge, and skills
C. Hypothesis Testing
1. Formulate empirically testable hypotheses
2. Marshal evidence to confirm or disconfirm hypotheses
D. Political Participation
1. Developing participation skills
2. Using knowledge and skills to make and act on political decisions
3. Debriefing
E. Value Judgment Analysis
1. Distinguish normative from factual questions and judgments
2. Relate value judgments to an empirical context
3. Establish warrants for value judgments
F. Achievement Assessement
1. Identification of achievement level
2. Provision of additional learning experiences for slower and faster learners

students ought to experience lessons designed to teach these skills.

This type of lesson can be carried out both in the classroom and in the school, as indicated by the diagram of our instructional strategy. The expository instructional mode is usually most appropriate to these classroom lessons. Expository instruction is the didactic presentation of ideas and information. In contrast to discovery lessons, expository instruction provides students with the entire content of what is to be learned. To guard against rote learning, expository instruction should be designed to require active response, immediate application, reinforcement, and remediation. Active response is intellectual involvement with the expository presentation. Immediate application is provided through exercises which require the use of ideas and information presented through the exposition. Reinforcement is provided through immediate feedback to indicate whether or not the responses to the application exercise are correct. Remediation is instruction provided to those who do not first master the application exercise.[30] "Knowledge and intellectual skill development" lessons which take place outside the classroom are usually extensions of prior classroom instruction. For example, students might learn about participant observation skills in the classroom through a programmed instruction lesson and then be required to complete an exercise involving participant observations in the school, by way of extending classroom learning and demonstrating mastery of a particular skill.

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[30]John P. DeCecco, The Psychology of Learning and Instruction, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968, pp. 322-384; David P. Ausubel, op. cit., pp. 83-88.

Category C, "hypothesis testing," provides opportunities for students to formulate and test descriptive and explanatory hypotheses that are responses to the questions raised during the confrontation lessons. The concepts, facts, and skills developed in the "Category B" lessons are presumed to be prerequisites to the formulation and testing of hypotheses; students are required to apply them to the hypothesis testing lessons in order to achieve mastery learning.

Hypotheses can be tested in the classroom with "canned" data and outside the classroom with data gathered through inquiry in the school. One outcome of hypothesis testing is the confirmation of hypotheses which are warranted in terms of available evidence and the rejection of hypotheses which are not warranted by the evidence. Another outcome may be the recognition of viable alternative hypotheses which represent legitimate disputes among scholars about particular descriptions or explanations.

Category D of the instructional strategy provides for the development of participation skills not typically learned in school and for the transfer of prior academic learning to political decision-making and action in the school. To initiate participation experiences, teachers help students to identify the key features of an up-coming participation experience, to map the setting and to plan for action. Teachers help students to see the connections between their prior political learning and the subsequent political learning to be achieved through participation experiences.

The political participation activities require students to decide and act to achieve something of value, to apply or transfer learning

achieved previously to classroom participation lessons and then to the real political world of the school. For example, students might develop the participation skill of bargaining through a classroom simulation lesson. The simulation activity would require students to apply knowledge about bargaining gained from previous classroom learning experiences. Following mastery of the simulation lesson, students would be required to apply their knowledge and skills of bargaining to the achievement of political objectives through participation in a student club meeting. Through these kinds of lessons, students would experience the utility of academic political learning as they apply or transfer this learning to political life in the school.

Debriefing lessons, post-participation analyses, conclude each set of participation experiences. During debriefing, the teacher helps students to assess the consequences of decisions and actions made during the previous participation activity and to evaluate their participatory moves. Teachers and students try to make the fullest sense of the participation experiences, to determine whether or not a particular set of instructional objectives have been achieved, to decide whether remedial or enrichment lessons are needed.

Category E, "value judgment analysis" provides students with opportunities to respond to normative questions and to find and analyze warrants for value judgments. Other categories of lessons in the instructional strategy require students to construct and analyze descriptive and explanatory statements, to consider what is, was, or what might be. These lessons require them to consider what ought to be. Through value judgment analysis lessons, students are taught to

distinguish factual from value judgments and that reasoned value judgments are informed by competent factual judgments, that careful consideration of what ought to be is tied to careful consideration of what is, was, and might be.

During this category of instruction, normative issues are raised and analyzed. The discovery mode of instruction, with a stress on divergent thinking, is most appropriate to this category of lessons. The instructional objectives for these lessons are specific about procedures while the value judgment outcomes are not specified, which provides for the possibility of considerable variation in value judgments about highly controversial issues.

As indicated by Category F of our instructional strategy, "achievement assessment," measurement and evaluation of instruction and learning, continues throughout every sequence of lessons. Students are required to demonstrate competence by applying knowledge and skills to master various types of formative tests. Some students will achieve mastery of basic objectives more quickly than others. Thus, throughout our instructional strategy, during every category of instruction, there is provision for enrichment and remediation. Student progress is monitored at each step in terms of precisely stated objectives, which indicate the competencies that we expect the learner to acquire from instruction. Faster learners have the opportunity to achieve more than the minimal political competencies posited by our performance objectives. The slower learners will be given remedial instruction which prepares them to try again to achieve mastery.

Although the six categories of our instructional strategy are depicted in a linear, building-block fashion in Diagram 6, there may be a dynamic interplay between the categories as they are applied to the design and implementation of lessons. In the diagram, the arrows show various interrelationships between categories of instruction. For example, achievement assessment occurs not only at the end of a unit of instruction, as suggested by the linear arrangement of the categories, but also within each of the other categories, as shown by the arrows which feed back from this category to the other categories of instruction. As indicated by the arrows, value judgment analysis is applicable to each of the previous categories of the diagram. Sometimes students may move back and forth between two categories before moving ahead. Or students may sometimes skip a category moving, for example, from knowledge and intellectual skill development to the direct application of knowledge and intellectual skills in a participation activity.

2. The Instructional Context. An appropriate instructional context, the setting in which instruction and learning occur, is necessary to the effective implementation of our instructional strategy. For our purposes, the primary facet of this setting are role relationships, the reciprocal rights and duties of teachers and students who interact to achieve learning.[31] The quality of these role relationships

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[31] Charles R. Andrain, Children and Civic Awareness, Columbus, Ohio: Charles Merrill Publishing Company, 1971, pp. 115-116.

can influence students' motivation for learning and their development of knowledge, skills, and attitudes.[32] Thus, the role relationships of teachers and students should be viewed as an instructional variable which can be managed to influence learning through the establishment of an open educational climate, through role modeling, and through small group activities within and outside of the classroom.

A primary feature of an appropriate instructional context is an open educational climate, role relationships in the school which allow teachers and students to pursue inquiry, to raise and study any questions considered important to the achievement of instructional objectives, and to design political strategies to achieve benefits which can be yielded by the political system of the school. Students must feel free to raise questions and to pursue answers, even when the questions and answers are controversial; they must feel free to arrive at answers that appear unorthodox, or that the teacher or school administrators may not agree with.

To use the school as a political laboratory, teachers in concert with administrators, must create a relatively free and open educational climate not only in the classroom, but in the entire school. As they study and participate in the political life of the schools, students must feel free to act openly and honestly, to apply social science inquiry to the study of political phenomena in the school and to apply political strategies to the achievement of values yielded by the political system of the school.

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[32] David P. Ausubel, Educational Psychology: A Cognitive View, New York: Holt, Rinehart and Winston, Inc., 1968, p. 416.

An important aspect of an open educational climate is encouragement of risk taking. To promote creative and productive intellectual and political moves in the school, teachers must help students to feel that they can explore and take chances and that the consequences for faulty moves will not be unduly severe.[33] If students make poor moves, they should be able to find out immediately why they erred and what they must do to overcome their deficiencies. However, students must never be made to feel so threatened by the possibility of making mistakes that the learnings which can only stem from successful personal innovation are precluded.[34]

To assist in the creation of an open educational climate, the teacher must be a leader, an authority, but not an authoritarian leader. The teacher as implementor of lessons is the leader in facilitating learner achievement of instructional objectives. The teacher ought to be an authoritative reference person, a source of expertise relevant to instructional objectives. However, the same standards for accepting or rejecting answers -- the canons of social science inquiry -- must be applied to the judgments of students and teachers alike. Teacher

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[33] David A. Goslin, Handbook of Socialization Theory and Research, Chicago. Rand McNally and Company, 1969, p. 20.

[34] Alan and Samuel Guskin, A Social Psychology of Education, Reading, Massachusetts: Addison-Wesley Publishing Company, 1970, p. 47.

and students must be partners in their quest to describe, explain, and evaluate, and to acquire the knowledge, skills and attitudes necessary to effective political action. However, the teacher, by virtue of educational background and social experience may often (but not always) be the senior partner in this mutual endeavor to develop student political competence.

Teachers who dominate the classroom in a dictatorial, or authoritarian, manner seem to stifle the learning of higher level intellectual skills while encouraging highly specific, concrete responses.[35] Furthermore, excessively dominative, authoritarian teacher role performance is likely to lessen the possibility that students will develop cooperative, creative and self-directive behavior.[36] In contrast, teachers who are respectful of student rights and feelings, who establish relationships of mutual trust that encourage speculation and innovation, and who are attentive to the emotional needs of students are more likely to contribute substantially to the development of desirable intellectual and social learning such as skills in divergent thinking and human relations.[37]

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[35] O. J. Harvey, Misha Prather, B. Jack White, James K. Hoffmeister, "Teachers' Beliefs, Classroom Atmosphere, and Student Behavior," in Matthew W. Miles and W. W. Charters, Jr., editors, Learning in Social Settings, Boston: Allyn and Bacon, Inc., 1970, pp. 122-133.

[36] Olive Banks, The Sociology of Education, New York: Schocken Books, 1972, pp. 181-182; Jack E. Dawson, Lawrence A. Messe, and James L. Phillips, "Effect of Instructor-Leader Behavior on Student Performance," Journal of Applied Psychology, 56 (1972), pp. 369-376.

[37] Ibid.

However, teachers must not concentrate so much on respecting students' rights and meeting students' emotional needs that they abdicate their responsibilities as authoritative leaders. Love, respect and emotional support are important, but insufficient, to the development of student political competence. Rather, within a supportive, open educational climate, teachers must challenge students to achieve particular objectives and must lead them to acquire the wherewithal to meet their challenges.[38]

Political attitudes and behaviors are acquired to a large extent through role modeling, a process through which "a person patterns his thoughts, feelings, or actions after another person who serves as a model.'[39] Political learning through role modeling in schools is associated with the role relationships of school administrators, teachers, and students. For example, through identification with teachers or peers, students may respond positively to behavioral cues and thereby develop particular political attitudes and behaviors. As a result of observation and interaction in groups in the school, students may learn to feel like, or empathize, with certain peers or adults.[40]

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[38] M. Brewster Smith, "Competence and Socialization," in John A. Clausen, editor, Socialization and Society, Boston: Little, Brown and Company, 1968, pp. 309-310.

[39] Albert Bandura, "Social Learning Theory of Identificatory Processes," in David A. Goslin, editor, Handbook of Socialization and Theory Research, Chicago: Rand McNally and Company, 1971, p. 214.

[40] Ibid., pp. 234-251.

In most schools role modeling is associated exclusively with informal learning. However, role modeling can become an important part of the formal political learning process of instruction designed to systematically develop political role behavior and attitudes. Teachers can consciously exercise leadership in the classroom in ways that are consistent with our instructional objectives for the purpose of influencing, through the process of role modeling, the behavior and attitudes of students. For example, teachers can encourage political tolerance by showing respect for the rights of students to hold alternative political values. And teachers can foster political interest by regularly displaying a high degree of enthusiasm for the study of politics and for involvement in political activities.

Instruction based on participation in groups in the classroom and in the school can contribute substantially to the learning of political role behavior and attitudes through a combination of role modeling, appropriate practice, and positive transfer. For example, students can be required to perform particular leadership or followership roles in the classroom, in groups of from five to ten students, as part of simulation exercises or group interaction experiments. They can also be required to practice roles, which have been introduced in the classroom, in participation settings in the school, such as student clubs. Through interaction with peers in group settings, both within and outside of the classroom, students can practice roles which they have learned about through reading and observation and can apply intellectual skills and knowledge, learned previously, which are pertinent to the successful performance of these roles. We assume

that practice in group settings is necessary to the development of competence in political role performance, that competencies which are practiced are reinforced through teacher and peer evaluation, and that continuous application of knowledge and skills to political participation activities in groups can refine and extend learning through the process of positive transfer.[41] Exposing students to a variety of socio-political role relationships through reading, observation, and role modeling sets the stage for the development of generalized role playing capability.[42]

Evaluation of role performances by peers, who are affected by the consequences of this behavior, is a powerful means to reinforcement and extension of learning. Immediate evaluation reinforces those who perform roles effectively, and those who are ineffective receive clues about what their deficiencies are and how they might overcome them. In particular, less able students can be prompted to use more able peers as role models, to observe and reflect upon the qualities which enable certain peers to perform political roles successfully during instructional activities.[43]

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[41] Ibid.

[42] Eugene A. Weinstein, "The Development of Interpersonal Competence," in David A. Goslin, editor, Handbook of Socialization Theory and Research, Chicago: Rand McNally and Company, 1971, pp. 763-765.

[43] Ibid., p. 713; Bandura, op. cit., p. 234.

An unusual and possibly very productive use of small group activity for political learning is to arrange intergroup competition in educational games. James Coleman has argued that instruction through intergroup competition can be a powerful motivator to learning.[44] He assumes that the excitement of teams competing in educational games can stimulate student effort to achieve instructional objectives. Coleman also contends that integroup competition can motivate brighter students to teach their less able team members so that their group can succeed. Where winning or losing depends upon joint effort, cooperation between individuals of various talents is likely to be stimulated. Peer tutoring might become common as the more able students in a group realize that it is in their self-interest to serve as task leaders and role models, rather than as overwhelming rivals, for less able students. Performing task leadership and instructional roles might have beneficial educational consequences for the more able students; it is well-known that teaching can reinforce and extend the learning of the teacher as well as the taught. Thus, one can hypothesize large gains in intellectual and participation skill development among both less able and more able students as a consequence of instruction through intergroup competition.[45]

An important weakness of conventional social studies programs has been lack of attention to the instructional context, to the possibilities

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[44] James S. Coleman, The Adolescent Society, New York: The Macmillan Company, 1961; James S. Coleman, Adolescents and the Schools, New York: Basic Books, 1965.

[45] David P. Ausubel, op. cit., pp. 420-421.

of managing role relations and group activities to enhance political learning. At present, in virtually every public high school, little or no systematic effort is made to manipulate conditions associated with informal political learning, to control, more or less, the political learning associated with role relationships within the classroom or with various extra-classroom experiences within the school. This neglect has often resulted in severe inconsistencies between formal learning achieved through academic experiences and informal learning associated with the instructional context. These inconsistencies can lead to the blunting or subversion of formal learning and to unintended outcomes. For example, a textbook lesson about the value of political participation can be undermined by an instructional context which precludes meaningful participation. And exhortations about the value of inquiry can be blunted by an instructional context which blocks meaningful study of certain controversial topics or issues. The Comparing Political Experiences program is designed to minimize the likelihood of negative political learning by requiring the management of the instructional context, whenever possible, to maximize student achievement of particular competencies.

3. An Example of a Unit of Instruction. Following is an example of how our ideas about instruction and learning might be applied to the design and implementation of Unit II of the first semester of Comparing Political Experiences. The unit of instruction is titled: "Political Resources and Political Experiences." Let us suppose that students have been working for about three weeks

within a systemic framework for viewing political life; they have been introduced to comparative analysis as it applies to different units of analysis from the local to international levels. Students have also begun systematic study of and participation in the political life of their school. They are now ready to study the political resources of influence, wealth, and ideology, which is the subject of Unit II of Comparing Political Experiences. This unit is designed to be used during a five-week period.

The general purpose of the unit is to develop knowledge of political resource patterns and particular intellectual and participatory skills that can contribute substantially to inquiry, critical thinking, and action pertinent to the political resources of influence, wealth, and ideology. The specific purposes can be listed as follows:

1. To teach students the basic concepts of political influence, wealth and ideology and how these concepts apply to different types of political systems at different levels of analysis.

2. To begin to teach students generalizations about patterns of political resources in elite, bureaucratic, coalitional and participant systems and to extend these generalizations to aid in explaining the four fundamental political experiences of political maintenance, change, development and conflict.

3. To extend students' competence in using the analytical skills of comparison, generalization and the use of generalizations to construct descriptive and explanatory arguments.

4. To teach students some basic methodological skills in sample survey research and content analysis.

5. To extend students' competence to do value judgment analysis by introducing them to skills of systematically linking preferences, hierarchically ordering preferences, and making choices in terms of these ordered preferences.

6. To begin to teach students some basic participation skills that enable them to use political resources to achieve political objectives.

7. To offer students some basic experience in analyzing and participating in the political life of their school using the knowledge and skills they have developed in the unit.

The concept of political resources, and the subsumed concepts of influence, wealth, and ideology are introduced through a confrontation lesson, which in this instance is a board game which students play in groups of five or six. The main point of the game is to demonstrate that resources place limitations on political activity and that actions must be planned and executed in terms of available resources.

The gaming situation is structured to aid student discovery of the relationship of available resources to political action. During the debriefing discussion, which takes place during the class period following completion of the educational game, students are cued to speculate from their gaming experience about the effects of available political resources on political participation. The debriefing session is also used to focus student attention on the main knowledge objectives of the unit, to arouse curiosity, and to motivate students to acquire the knowledge and skills necessary to understand political resources and to use them effectively and wisely.

The next lesson is designed to follow-up the introduction of the political resources concepts with a systematic expository presentation via picture slides and audio-tapes of the concepts of political influence, political wealth, and political ideology. The lesson is based on the rule-example technique for teaching concepts. The first step is the statement of the concept rule, or definition. Next, positive and negative examples of the concept are presented. Then students are required to apply the concept rule to discriminate positive

from negative examples of the concept. This "slide-tape" lesson also develops knowledge of political resource patterns, of the relationships between these patterns, and of the relationships of political resource patterns to the basic political experiences of conflict, development, maintenance, and change.

Students respond to the messages of the "slide-tape" lesson on worksheets with exercises which are linked to the audio-visual presentation. These worksheets consist of application activities which prompt the student to be an involved viewer of the "slide-tape" and an active learner of the concepts and generalizations that are presented. Feedback provided by the audio-visual materials and the teacher, about the worth of student responses to the worksheet exercises, enables students to guage the extent to which they are, or are not, achieving the objectives of the lesson.

The next six class periods are used to intensively develop knowledge about political influence (one of the three political resource concepts introduced through the previous two lessons) and to introduce certain intellectual skills which enable students to conduct inquiries about political influence through homework reading and application exercises in a core textbook. Through readings and the use of data in the "data resource" section of the core text, students learn about fundamental influence patterns as they are structured formally through official institutions and informally through individual and group interaction. They learn about these types of influence patterns: hierarchical, pyrimidal, vertical, and mixed patterns. These types of influence patterns will be studied in elite, bureaucratic, coalitional

and participant political systems at these levels of analysis: school, local, state, national and international. During this lesson students will be introduced to four national states which will be examined throughout the program as examples of particular political system types: China, an elite system; Mexico, a bureaucratic system; West Germany, a coalitional system; and the U.S.A., a participant system. Through classroom application exercises, students are required to demonstrate concept and knowledge acquisition.

As part of their lessons about political influence, students develop table reading and table building skills. Programmed instruction with application exercises is the medium through which the lesson is presented. Students work on the lesson in small groups of four or five so that they can help one another to master the application exercises.

The following six class periods are devoted to learning about a second concept subsumed by political resources, which is political wealth. Students develop knowledge about political wealth through homework reading and application exercises in the core text. Students learn about patterns of political wealth through readings and the use of data in the "data resource" section of the core text. They learn about different political wealth patterns which include more or less selective distributions. These political wealth patterns are examined in different types of political systems and at different levels of analysis. Students are required to demonstrate concept and knowledge acquisition through classroom application exercises.

As part of their lessons about political wealth, students are required to extend their value judgment analysis skills which were

introduced in Unit I. Students are prompted to supply alternative endings to open-ended case studies as a way of identifying and examining their value judgments. In particular, students are taught to order their preferences hierarchically and to choose preferences systematically in terms of their most fundamental value judgments.

The previous knowledge and intellectual skill building activities set the stage for inquiry about patterns of political influence and political wealth in the school. Students are divided into four groups. Two groups are provided with sample survey research inquiry skill kits, and two groups are provided with content analysis skill kits. Each skill kit contains an instructional program to develop the knowledge and skill necessary to conduct inquiry in the school using either sample survey research or content analysis as the means of doing research. Each skill kit also poses a different research problem about political influence or political wealth in the school and provides a format and structure for gathering, processing, and interpreting data to solve the research problems. After spending two class periods mastering prerequisite skills and planning to conduct inquiry, the four student groups move outside the classroom to gather data, which is to be brought back to the classroom for processing and interpretation. For example, one group does a sample survey of student opinion about political influence patterns in the school, and another does content analysis of written records, such as minutes of student group meetings or of the student newspaper, to gain knowledge of influence patterns. A third group does a sample survey study to gather demographic data related to the distribution of political wealth

in their school. The fourth group can do content analysis studies of administrative memos, such as the student handbook, and the teachers' continuing regulations to measure the distribution of political wealth in the school.

Students are now ready to apply their knowledge of political resources to political participation activities both within and outside of the classroom. The first lesson occurs in the classroom and is aimed at developing participation skills in creating, maintaining, and changing influence and wealth patterns in group settings. Through participation in simulated group experiences in the classroom, students can learn to work effectively in and to develop various influence and wealth patterns. They can learn basic skills in group dynamics and task development which give them a means for putting their knowledge about political influence and political wealth to use in group settings.

Next, students select tasks which they desire to achieve in group settings outside the classroom. Then they apply knowledge and skills learned in prior lessons to the achievement of a political objective, which is the point of a political participation lesson. For example, assume that some students are interested in influencing a decision in a student club. To prepare for political involvement, the students decide to make five planning moves: 1) to choose four organizations which exhibit different structures of political influence, i.e., hierarchical, pyrimidal; 2) to interview at least one member of the student club in order to learn when the decisions they are interested in are to be discussed publicly; 3) to analyze past records of the organizations to determine how decisions have

been reached in the past; 4) to research the issues surrounding the decisions that they want to influence; and 5) to plan alternative strategies for influencing the decisions. To make these planning moves, students must apply knowledge and practice analytical and methodological skills learned earlier.

The students are now ready for political action. They divide into four sub-groups for the purpose of using alternative strategies of political influence. Each group implements a strategy designed to influence the decision outcome of a different organization. For example, students may decide to influence an organization which is hierarchically structured by supplying relevant evidence for their position directly to the head of the organization. Students involved in an egalitarian organization may exert informal pressure on several key decision-makers. Each group would keep a record of their influence strategies and their successes and failures to influence decision outcomes.

After the issues have been resolved, all the students involved in the activity meet to discuss their efforts and to arrive at answers to such questions as the following: 1) What influence strategies are more effective than others? 2) How does the exercise of influence effect decision-making in each type of influence structure? 3) How can influence structures and strategies effect change or conflict in the school system as a whole?

In the course of this political participation activity, students apply knowledge learned in class and acquire new knowledge. They practice skills learned earlier in the program. And they participate

in the effort to resolve a school issue about which they had acquired knowledge and opinion.

During the next four days, students have lessons that develop knowledge about political ideology through homework readings and application exercises in the core texts. Through readings and the use of data in the "data resources" section of the text, students learn about types of political belief systems which are more or less well-articulated. They learn about political ideology patterns in different types of systems and at different levels of analysis.

The next lesson requires students to make value judgments about the direction that our society should take. Students appraise brief case studies about future political systems, based on popular literature, as these cases pertain to political resources, in particular, the resource of political ideology.

At this point in the unit, students are ready again to conduct inquiry in the school, this time about patterns of political ideology. As before, students are divided into four inquiry groups. The two groups which previously used the sample survey research skill kit now use the content analysis skill kit and vice-versa. After acquiring the prerequisite skills through mastery of a programmed lesson, each group assumes responsibility to complete a study of political ideology patterns in the schools. For example, two groups can do a sample survey of studies of ideological orientations among students. The other two groups can do a content analysis of school documents and relate their findings to the ideological orientation stated in the official school philosophy.

This unit is concluded by lessons which forge connections between the three political resource concepts: influence, wealth, and ideology. During the first set of lessons, which use three class periods, students acquire and apply knowledge about the relationships of political resource patterns to basic political experiences in different types of political systems. They read exposition and use data in the core text as homework and are required to demonstrate ability to build and link generalizations through classroom application lessons. Students are introduced to multi-variate analysis and over-time analysis as they work with readings and data in the core reader and during classroom application exercises.

During the next set of lessons, which use two or three class periods, students analyze data gathered through their previous inquiries in the school which were done with the two inquiry skill kits introduced in this unit. Students apply their multi-variate analysis and over-time analysis skills to build warranted descriptive and explanatory generalizations from these data, then they try to relate their school experiences to these findings to determine how these experiences are informed by their generalizations.

During the last two class periods of this unit, students work in small groups to identify participant roles and strategies pertinent to their study of political resources which they can implement in the school during the remainder of the semester. This activity, and the role performance that flows from it, is presented as the culmination of prior studies about political resources.

These examples of lessons about political resources indicate how our instructional strategy can be implemented to achieve instructional

objectives. Over the length of the Comparing Political Experiences program, students are given similar political learning experiences pertinent to each of the basic concepts in the systemic structure.

C. Justification of Our Use of Competency-Based Instruction and Learning

The preceding discussion indicates how we intend to adapt and use competency-based instruction to help older adolescents achieve particular political learning. However, this discussion did not deal with some important limitations and difficulties connected with the use of the competency-based approach to teach higher level thinking skills and to develop political participation skills through various kinds of group activities. In order to justify our use of competency-based instruction, it is necessary to clearly recognize these problems and to indicate how we intend to cope with them.

The first set of limitations are associated generally with the practice of competency-based instruction and pertain to three basic assumptions of this approach. The first major assumption is that measurable objectives can be specified for every desired outcome of instruction. A related assumption is that means can be designed to assess the impact of instruction on learning, that every objective which is measurable in principle can indeed be measured. A third assumption is that an exact fit can be made between instructional techniques and materials, the conditions of learning, and particular instructional objectives.

These assumptions can be implemented to a considerable extent when designing instruction to yield political competencies. If they

were not at all implementable, then competency-based instruction would not be viable. However, these assumptions do provide the instructional designer with some stiff challenges. There are likely to be some political competencies that we aim to develop which are not as easy to state precisely, in measurable terms, as others. This limitation may pertain especially to certain competencies in the realm of participation skills and attitudes. We may also have some difficulty designing means to measure the achievement of some higher level intellectual skills that involve divergent thinking or very complex evaluational or analytic moves. Finally, the empirical ground which can support decisions about how to manipulate conditions of learning to achieve particular objectives is not as large and stable as it could be. Many decisions about how to best arrange conditions of learning must be based upon artful hunches or common-sense rather than upon scientific research.

The extension of competency-based instruction to political learning in groups, which is a staple of the Comparing Political Experiences program, poses two particular pedagogical problems and surfaces additional limitations of our instructional paradigm. The first problem pertains to extra-classroom participation experiences and the second to the achievement of competencies by each individual through instruction that requires group activity.

Problem one arises from the fact that conditions of learning associated with political life, the performance of participant roles in the school or elsewhere, are not as amenable to manipulation or instructional design as are other facets of our program. One can

posit precise instructional objectives for academic learning in the classroom and can manipulate the learner's environment in ways deemed likely to facilitate achievement of these objectives. One can posit precise instructional objectives for the practice of social science inquiry in the school and can arrange learning experiences in terms of those objectives. However, real political life is not subject to instructional control in the same way as academic learning experiences. Thus, our competency-based conception of instruction can be extended only with certain limitations to participation experiences outside the classroom.

The instructional limitations associated with requiring students to apply knowledge and skills acquired in an academic setting to political life outside the classroom can be minimized by stressing the linkage between academic political learning and participation experiences and by stressing post-participation assessment and evaluation of decisions and actions in terms of prior learning. Students who are able to competently assess and evaluate their experiences in participant activities demonstrate that they are mastering instructional objectives relevant to the participation experience. And students who have had prior instruction that is relevant to the arranged participation experiences should be able to demonstrate the effects of this previous formal learning by playing participant roles effectively.

The second problem stems from the attempt to mesh the needs of individual learners with the need to develop political participation skills through group activities. A competency-based system of

instruction is geared to facilitate mastery of minimal course objectives by as many students as possible; ideally, all students should achieve mastery. This ideal, in principle, is attainable when applied to the development of knowledge and intellectual skills through differentiated instruction. However, is this ideal at all practicable when applied to the development of participation skills through group learning activities? Does group achievement substitute for individual achievement? Can every student develop even minimal participation skills in a learning context that is likely to be dominated by a minority of students with high aptitude for the development of participation skills? And how does the student who fails to achieve a participation skill try again to attain mastery when the other members of the group have achieved the objective and are ready to move ahead to a new lesson?

One response to the problem of meshing group learning with the needs of individual learners is to stress that most of the minimal political participation competencies of the Comparing Political Experiences program are tightly interrelated and must be achieved cumulatively, over a lengthy period of time, rather than as the result of a single lesson, or set of lessons. Thus, the students who are slower learners of participation skills, as evidenced by performance at one time in a particular group, can continue to practice the same participation skills in response to different lessons with various objectives at later times and within various groups. For example, a particular set of lessons might be designed to introduce students to the use of bargaining skills. Undoubtedly some students will more quickly achieve a minimal level of mastery than others, and some students may not achieve the minimal level

of mastery as a result of this activity. However, the use of bargaining skills, in relationship to other participation skills, will be an important feature of many subsequent group participation activities. Thus, deficient learners have an opportunity to develop their bargaining skills to a minimally acceptable level over a period of time through different activities. More able students have the opportunity to reinforce previous learning and to extend their bargaining skills far beyond the minimal level of mastery specified by the course.

Another complimentary approach to the group learning and individual competency problem is to emphasize group achievement rather than mere individual accomplishments. As athletic teams, as well as political organizations, succeed or fail as groups, so the participation activity groups can be judged competent, or incompetent, as a whole on the basis of whether group goals are achieved. This group approach to mastery of objectives might encourage the more able students to help the less able in their group to perform competently enough to achieve group success.

To emphasize group achievement, in terms of specific objectives, is to recognize that within a participation group context, political competency can be judged variously in terms of the different potentialities of individual group members. For example, not everyone in the group has the potential to be an outstanding leader. However, each group member can learn what are the attributes of outstanding leadership, how to select the best leaders for a given situation, when and how to change leadership, and how to organize for effective followership. Each student can learn how to divide responsibilities and to work cooperatively to

achieve a group goal.

Recognition of various levels of competency in the development of participation skills through group activity means that within limits the less able participants can be judged as mastery learners along with their more able peers. For example, a student who has achieved a minimal level of competence in the development of particular participation skills probably will not outdo an extraordinarily skilled peer in a competitive situation. However, the less able student might still perform ably enough to merit achievement of minimal course objectives.

Through group participation activities students can have the opportunity to explore their political potentialities, can strive to develop these potentialities to the fullest, and can learn to recognize lack of potential and how to most wisely use available human resources. Some students may uncover and develop previously hidden talents, while other may learn to more realistically assess their capabilities and to concentrate more effectively on developing whatever skills they can attain.

Competency-based instruction can be applied, with the kinds of adjustments suggested above, to political learning in group contexts. Regardless of the limitations in the instructional paradigm that prompts these adjustments, we believe this approach to teaching has a greater potential than the possible alternatives to develop a wide range of political competencies among large numbers of learners.

The chief value of the competency-based approach is that it helps the instructor to reduce the elements of chance in the learning situation. Each lesson is planned to move learners as efficiently as possible toward achievement of specific outcomes, or competencies. Instructional techniques and materials are selected pointedly to serve the achievement of specific outcomes. Thus, trial and error learning, informal learning, is minimized and formal learning, the consequence of instructional design, is maximized.

The potential efficiency and effectiveness of competency-based instruction to change the behavior of learners has prompted some critics to raise another set of difficulties, which are specious. These critics fear that this approach leads inexorably to negative consequences, such as dehumanization, mindless conformity, or dictatorial mind control. These fears may be pertinent to some uses of competency-based instruction and learning, but they are not necessarily associated with it. There is nothing inherent in competency-based education that dehumanizes, or that yields passive, conformist types who are geared to the needs of a closed, dictatorial society.

The best way to determine the potential effects of a competency-based system on learners is to examine the instructional objectives which are posited as the valued outcomes of instruction. Competency-based instruction and learning can be employed to achieve various kinds of objectives, which describe competencies that are more or less likely to contribute to development of potential to think and learn independently in ways that benefit the individual and society. For

example, competency-based instruction can help learners to master competencies that are trivial and insignificant or profound and relevant; that destroy initiative and creativity or that enhance human potential for independent, divergent thinking; that are geared to keep a society as it is or that equip individuals to initiate and manage change. B. F. Skinner has described very aptly alternative consequences that could flow from the efficient use of a teaching technology, such as our competency-based system of instruction and learning:

> It could well be that a technology of teaching will be unwisely used. It could destroy initiative and creativity; it could make all men alike (and not necessarily in being equally excellent). It could suppress the beneficial effect of accidents on the development of the individual and on the evolution of a culture. On the other hand, it could maximize the genetic endowment of each student; it could make him as skillful, competent, and informed as possible; it could build the greatest diversity of interests; it could lead him to make the greatest possible contribution to the survival and development of his culture.[46]

Examination of the overall course objectives and the instructional strategy of the Comparing Political Experiences program reveal the high value placed on higher level cognition and learning, on developing competence to think critically and to practice scientific inquiry. In addition, there is much emphasis on helping students learn to use knowledge and skills to enhance their political potentialities by planning and implementing solutions to political problems. The purpose is to develop the competencies of as many persons as possible to think

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[46] B. F. Skinner, op. cit., p. 9.

and learn about politics independently in order to maximize potential to determine and to achieve self-defined political ends. Although the competency-based approach to instruction can be employed to try to make all learners as nearly the same as possible, it can also be used, as we intend, to enhance human potential variously, to develop among as many individuals as possible the potential for self-determination and fulfillment within a group context.